

NEW (SUB)SPECIES OF *DELIAS* FROM THE CENTRAL MOUNTAIN RANGE OF IRIAN JAYA (LEPIDOPTERA: PIERIDAE)

Mastrigt, H. J. G. van, 1990. New (sub)species of *Delias* from the central mountain range of Irian Jaya (Lepidoptera: Pieridae). – Tijdschrift voor Entomologie 133: 197-204, figs. 1-17. [ISSN 0040-7496]. Published 14 December 1990.

Delias sinak sp. n., *D. sigit* sp. n., *D. bobaga* sp. n. and *D. catocausta eefi* subsp. n. are described from the western part of the central mountain ranges in Irian Jaya, Indonesia. The recent acquisition of new *Delias* material from Abmisibil in the Star Mountains of Irian Jaya, leads to the recognition of the following new taxa: *D. oktanglap* sp. n., *D. wollastoni abmisibilensis* subsp. n., *D. luctuosa kuning* subsp. n. and *D. nieuwenhuisi poponga* subsp. n. *Delias nieuwenhuisi* nom. nov., a replacement name for *D. leucias roepkei* Nieuwenhuis & Howart (nec Benneth, 1956), is raised to specific rank.

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Keywords. – Lepidoptera; Pieridae; *Delias*; new species; Irian Jaya; Indonesia.

From the beginning of this century quite a few expeditions succeeded to enter the interior of Irian Jaya (former Dutch New Guinea). The butterflies of the genus *Delias* collected during these expeditions provided material for the description of new species from the Arfak Mountains, Weyland Mountains, Wissel Lakes, the surroundings of the Carstensz Peak, the Baliem Valley, Mt. Goliath and the Star Mountains.

The Star Mountains in Irian Jaya are one of the central mountain ranges of which no reports on *Delias* have been published. The results of the Dutch expedition to the Star Mountains in 1959 were poor and never published, as far as *Delias* is concerned. In fact, most information about *Delias* from the Star Mountains concerns the Papua New Guinea part of this range, where the late Ray Straatman and others collected at Telefomin, close to the Indonesian border. Results from the Papua New Guinea part of the Star Mountains are found in RMNH, BMNH and several private collections.

Since 1978 I have collected in the Star Mountains of Irian Jaya (fig. 17). The weather in these mountains is often cloudy and rainy, so that only small numbers of *Delias* can be collected in a short time, contrary to more western ranges of the central mountains where the weather is usually sunnier. Besides that, the mountains are rough and steep, which does not make travelling easy.

Further exploration of the extensive central mountain range of Irian Jaya, with its isolated val-

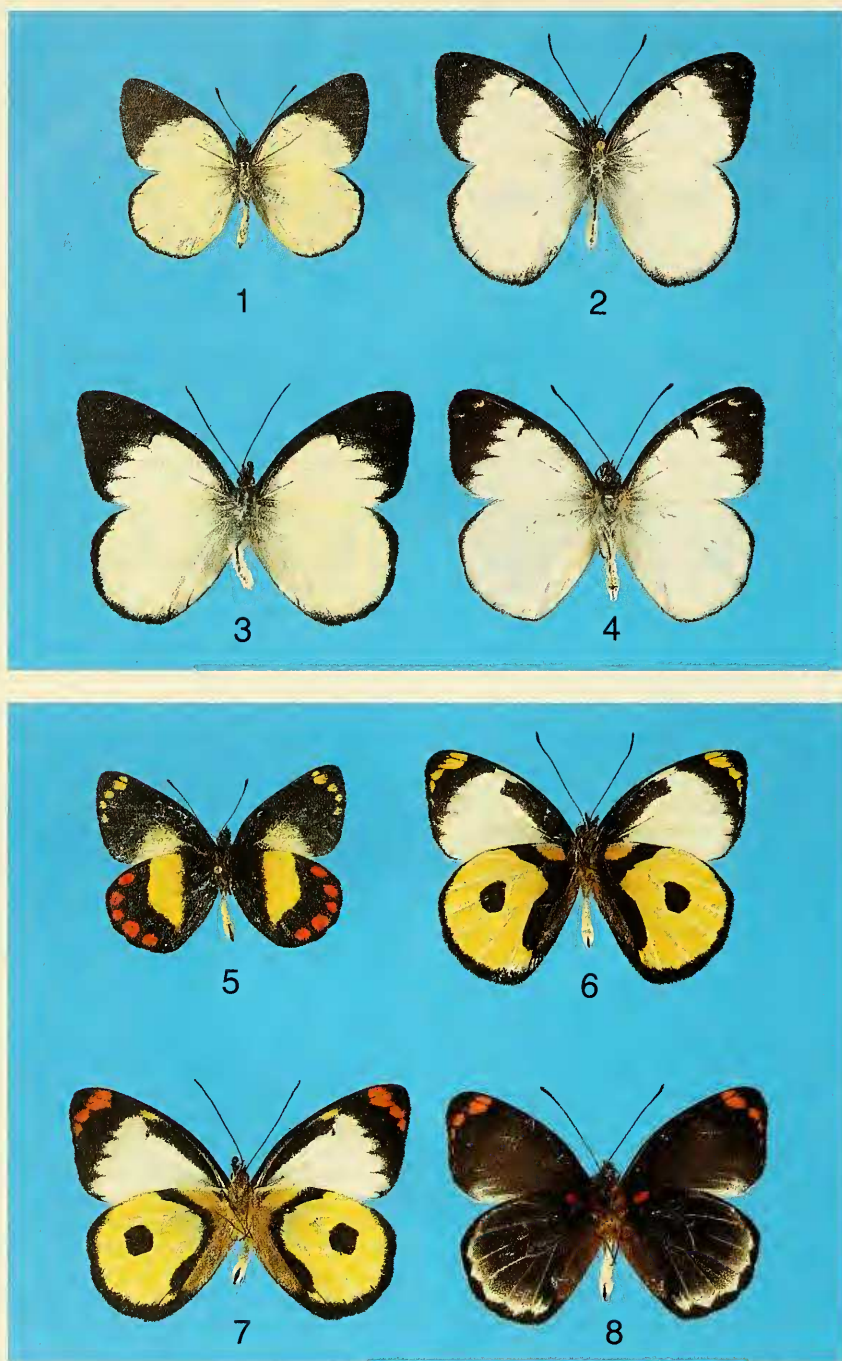
leys led to the discovery of new taxa.

In this paper three new species and one new subspecies from the western part of the central mountain ranges are described. My recent acquisitions of *Delias* from the Irian Jaya Star Mountains and study of additional museum material led to the recognition of one new species and three new subspecies from this area. Finally, a previously described subspecies is raised to specific rank.

Depositories

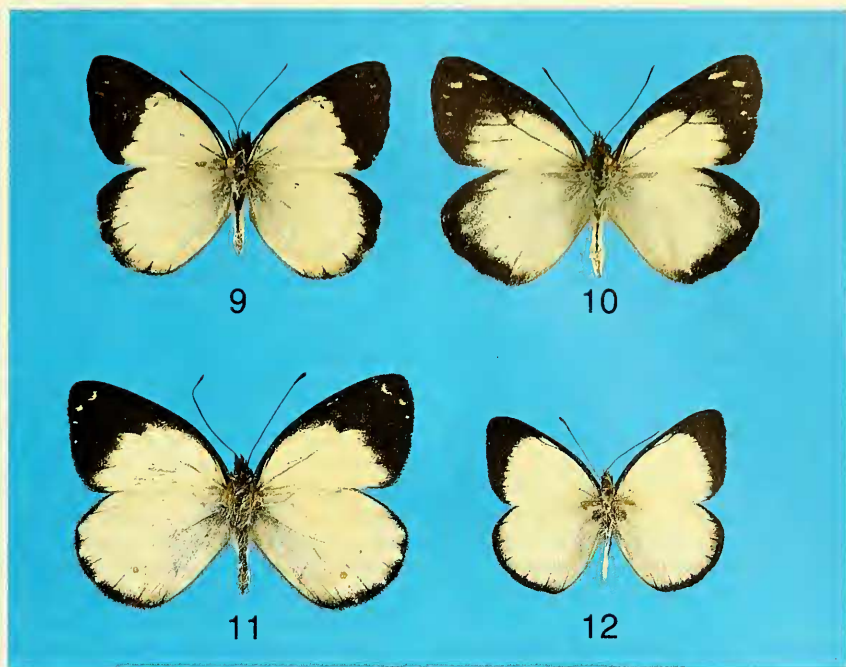
The abbreviations given below have been used in the list of material and throughout the text.

BT – Private collection of Bernard Turlin, Andrésey, France; CT – Private collection of Collin Treadaway, Limbach, BRD.; DM – Private collection of David Mannering, Staplehurst, Kent, U.K.; DR – Private collection of David Rushen, E. Sussex, U.K.; ER11 – Private collection II of Eduard Reissinger, Kaufbeuren, BRD.; GG – Private collection of Fred Gerrits, Brisbane, Australia; HM – Private collection of the author, Jayapura, Indonesia; MZB – Museum Zoologicum Bogoriense, Bogor, Indonesia.; RG – Private collection of Robert Gotts, Sidney, Australia.; RMNH – Nationaal Natuurhistorisch Museum (Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands; ZMA – Instituut voor Taxonomische Zoölogie (Zoölogisch Museum), Amsterdam, The Netherlands.



Figs. 1-4. New (sub)species of the genus *Delias*; uppersides of male holotypes. 1, *D. sinak*; 2, *D. sigit*; 3, *D. bobaga*; 4, *D. catocausta eefi*.

Figs. 5-8. New (sub)species of the genus *Delias*; undersides of male holotypes. 5, *D. sinak*; 6, *D. sigit*; 7, *D. bobaga*; 8, *D. catocausta eefi*.



Figs. 9-12. New (sub)species of the genus *Delias*; uppersides of male holotypes. 9, *D. oktanglap*; 10, *D. wollastoni abmisibilensis*; 11, *D. luctuosa kuning*; 12, *D. nieuwenhuisi poponga*.

Figs. 13-16. New (sub)species of the genus *Delias*; undersides of male holotypes. 13, *D. oktanglap*; 14, *D. wollastoni abmisibilensis*; 15, *D. luctuosa kuning*; 16, *D. nieuwenhuisi poponga*.

DESCRIPTIONS

Delias sinak sp. n.
(figs. 1, 5, 17)

Type material. – Holotype ♂: 'Irian Jaya, route Mulia – Sinak, vii.1989; don. Fr. Gerrits', ZMA. – Paratypes: same data as holotype, 2 ♂, GG; same data, but vii.1990, 6 ♂, GG; 4 ♂, HM; Mulia, ix. 1990, 7 ♂, GG; 3 ♂ MZB.

Diagnosis

This species belongs to a subgroup of rather small *Delias*, consisting of *Delias sagesa* Fruhstorfer, 1910 from East Papua New Guinea (including its subspecies *straatmani* Schröder, 1977 from Telefomin, Star Mountains and *anjae* Schröder, 1977 from the Arfak Mountains) and *Delias abrophora* Roepke, 1955 from the Paniai-district. These species are characterized by the black border of the hind wing underside, bearing five rounded red spots. The new species differs from these by the absence of the red spot at the base of the yellow (and white) discal band in the hind wing underside.

Description

Male. – Upperside fore wing white. Black border, with regularly curved inner edge, from discal cell at vein M_1 to margin border at 2A. Upperside of hind wing translucent white with narrow (1.5 mm) black border. Underside of fore wing black with a white area (some grey-black diffusion), from middle of tornus to vein CU_2 , sometimes entering discal cell, three subapical yellow spots followed by two marginal ones. Underside of hind wing black, 5 mm wide, yellow discal band from middle of tornus to vein 2A, becoming narrower from vein M_3 , not reaching anal border. Terminal border with five large, more or less round, red spots, slightly variable in size and shape.

Length of fore wing: 22 mm.

Female unknown.

Derivation of name. – 'Sinak': a noun in apposition. This butterfly occurs along the route from Mulia to Sinak and received its name from the latter locality.

Delias sigit sp. n.
(figs. 2, 6, 17)

Type material. – Holotype ♂: 'Irian Jaya/Centr. Bergland/Iraga, River Jila/ 7.vi.1988/Henk van Mastrigt' ZMA. – Paratypes: same data as holotype, 2 ♂, HM; same data but 9.iv.1988, 5 ♂, ZMA; 6 ♂, MZB; 22.v.1988, 4 ♂, HM; 2 ♂, BT; 27.viii.1988, 2 ♂, MZB; 2 ♂, HM; 1 ♂, BT; 2.v.1990, 2 ♂, HM; 4.v.1990, 3 ♂, HM; Ilaga, River Mum, 22.i.1989, 1 ♂, ZMA; Ilaga, 10.viii. 1988, 1 ♂, MZB; 1 ♂, HM; 1 ♂, BT; 1 ♂, GG; Mulia-Sinak, vi-vii.1989, 2 ♂, GG; Beoga, xii.1989, 7 ♂, GG; 1 ♂, HM; Mulia, ix. 1990, 10 ♂, GG.

Diagnosis

This species is similar to *Delias mariae* Joicey & Talbot, 1916 and *D. bobaga* because of its bright and broad distal band on the hind wing underside, which is white with large orange patches. It differs from *D. bobaga* in lacking the large number of yellow scales in cells 2A and 3A of hind wing underside. It differs from *D. mariae* in having a yellow basal streak, which is connected to the white costal border. The basal streak of *D. mariae* sometimes with a small whitish edge, but the costa is black instead of white.

Description

Male. – Upperside of fore wing milky white with broad black costal border, entering discal cell, black LDC. Black border along termen, much broader at apex than at tornus and has slightly serrate inner edge, often with 1 or 2 subapical spots; second one very small. Upperside of hind wing milky white and translucent, narrow black border; whole pattern of underside visible from above. Underside of fore wing milky white with black border narrower than on upperside, three yellow subapical and one or two very small terminal spots. Large anterior part of discal cell black, passing LDC. Base of wing with some black and some blackish diffusion. Underside of hind wing yellow to yellowish orange with white veins, rounded black submarginal spot reaching LDC. Broad black anal part with some greyish green diffusion, connected to white costa, cutting off a yellow basal streak. Black border from $SC+R_1$ to 2A increasing in width from less than 1 mm to 3 mm.

Length of fore wing: 25-29 mm.

Female unknown.

Derivation of name. – 'Sigit', a noun in apposition. 'Sigit-sigit' is the vernacular word for butterfly, used by the Dani people in the Iraga valley, where this butterfly occurs.

Delias bobaga sp. n.
(figs. 3, 7, 17)

Type material. – Holotype ♂: 'Kamu Valley, 1700 m, ix.1989, don. Henk van Mastrigt', ZMA. – Paratypes: same data, 1 ♂, MZB; 1 ♂, GG; 1 ♂, DM; Kamu Valley: Ekemanida, River Tuka & Enau, 1700-1800 m, 23-30.x.1990, 3 ♂, HM; River Mouna, 1.ii.1990, 5 ♂, GG; River Epugewo, 2.ii.1990, 1 ♂, GG; Idadagi, River Migu, 21.ii.1990, 1 ♂, HM; Idadagi, River Bedonaka, 20.iv.1990, 1 ♂, HM; River Budau, 10.xi.1989, 1 ♂, GG; River Ode, 2.ii.1990, 3 ♂, GG; Mapia area: River Okagou, 7.xii. 1989, 1 ♂, GG; 17.xii.1989, 1 ♂, HM; River Otika, 8.xii. 1989, 1 ♂, HM; River Yatuwou, 9.xii.1989, 1 ♂, GG; River Gudopena, 11.xii.1989, 1 ♂, GG; River Ude, 13.xii.1989, 1 ♂, GG; River Piyakoywa, 1 ♂, GG; River Okagou & Yatuwou, 25-26.xi.1989, 1 ♂, HM; Mapia, River Iyage, 13.xii. 1989, 1 ♂, HM.

Diagnosis

This species is closely related to *D. sigit* sp. n., *Delias mariae* Joicey & Talbot, 1916 (including its subspecies *D. mariae boschmai* Roepke, 1955) and *D. mariae menooensis* Joicey & Talbot, 1922, with which it occurs together in the Kamu Valley. However, it differs from those in the large number of yellow scales in the cells 2A and 3A and in a much larger basal spot on the underside of the hind wing.

Description

Male. – Upside of fore wing white to creamy white with broad, black costal border, entering discal cell, black LDC. Black border along termen, much broader at apex than at tornus and has a strongly serrate inner edge, sometimes absorbing black LDC. Upside of hind wing creamy white and translucent with narrow black border; whole pattern of underside visible from above. Underside of fore wing milky white with black border, more reduced than on upperside, three red subapical spots and a red terminal one. Anterior part of discal cell black, via M_2 connected to black border, separating a small, yellowish spot. Underside of hind wing yellow with white veins and black submarginal spot just outside discal cell. From middle of costa a broad, curved, black line extends through inner part of discal cell along yellow green anal area to the bottom of cell CU_2 , where it is connected by a thin black line to the broad, black border, which runs from RS to 3A. Inner part of costa white. Base yellow with small black triangle at inner part.

Length of fore wing: 27–29 mm.

Female unknown.

Derivation of name. – ‘Bobaga’, a noun in apposition, is the vernacular word for butterfly used by the Ekagi people in the Paniai district, where this butterfly occurs.

Delias catocausta eefi subsp. n.

(figs. 4, 8, 17)

Type material. – Holotype ♂: ‘Irian Jaya/Tembagapura 2000 m/17.xi.1979/Van Mastrigt’, ZMA. – Paratypes: same data, 1 ♂, DR; same data but 17.xi.1979, 1 ♂, HM; 1 ♂, MZB; Tembagapura, 2000 m, 1980, 2 ♂, RG; 1983, 1 ♂, GG; Tembagapura, River Wanogong, 2000 m, 1989, 1 ♂, HM.

Diagnosis

Apart from the nominate form *D. catocausta catocausta* Jordan, 1912, only *D. catocausta nigerima* Roepke, 1955 is known, from the Andrea River, just 50 km west of Mt. Goliath (c. 140° E.). The newly described subspecies is also from the southern side of the central mountain range of Irian Jaya, but occurs much more to the west: on the south sides of the Puncak Jaya (Carstensz Peak), c. 137°

E. It differs from the two above mentioned ones in the grey (instead of brown) ground colour on the underside of fore and hind wing, in the red (instead of yellow) colour of the basal spot on hind wing underside and in having white veins.

Description

Male. – Upside of fore wing milky white, black tornus, thick, black LDC and black border along termen; this black border is much broader at apex than at tornus, has serrate inner edge and bears 2 poorly developed subapical spots. Basis of fore wing with some blackish diffusion. Upside of hind wing milky white with very narrow black border. Underside of fore wing grey at innerside; the grey colour is connected by black veins to black border along termen; black border with three red subapical spots and two very small terminal ones. Inner edge of border serrate. A white band with some grey diffusion separates dark inner part from black border, widening from less than 1 mm on top to 7 mm along tornus. Underside of hind wing grey with white veins and small black spot close to discal cell on vein M_2 . Cell along costa, inner part of discal cell and cells 2A and 3A form a black hook with small red basal spot and greyish green diffusion along anal area in 3A. Narrow black border from cell RS to anal area is undulate at inner edge and separated from grey discal part by white line in cell RS, getting broader in M_1 , M_2 , CU_1 and somewhat narrower again in CU_2 . Border between this white line and grey innerpart vague and diffuse from M_1 till CU_2 .

Length of fore wing: 27 mm.

Female unknown.

Derivation of name. – This subspecies is named in honour of my father, the late Mr. Eef van Mastrigt, who awakened my interest in nature and especially in butterflies.

Delias oktanglap sp. n.

(figs. 9, 13)

Type material. – Holotype ♂: ‘Irian Jaya/Sterren Gerge/Abmisibil 1920 m/ River Oktanglap/27.ii.1989/-Henk van Mastrigt’, ZMA. – Paratypes: same data, 3 ♂, ZMA; same data, but 11.ix.1985, 4 ♂, HM; 12.ix.1985, 1 ♂, HM; 14–16.ix.1985, 6 ♂, ZMA; 2 ♂, HM; 1 ♂, ZMA; 6.vi.1986, 4 ♂, RMNH; 29.iv.1986, 1 ♂, HM; 2.v.1986, 1 ♂, HM; 22.x.1986, 4 ♂, RMNH; 2 ♂, HM; 17.vii.1987, 3 ♂, HM; 11.iii.1988, 2 ♂, MZB; 16–19.iii.1988, 7 ♂, ZMA; 3 ♂, BT; 20.iii.1988, 2 ♂, HM; Barimban, River Okkim, 1850 m, 14–16.ii.1987, Van Mastrigt, 6 ♂, RMNH; same data, but ix.1987, 2 ♂, ZMA; 19–21.iii.1988, 2 ♂, ZMA; 13–15.iv.1988, 1 ♂, BT; v.1988, 2 ♂, MZB; 19–20.viii.1990, 2 ♂, HM; Abmisibil, River Takpalngi, 17–25.ix.1988, 2 ♂, MZB; 1 ♂, BT; Abmisibil, River Okpeti, 1800 m, 14.ix.1986, 1 ♂, HM.

Diagnosis

This new species belongs to the *cuningputi* group, consisting of *D. cuningputi* (Ribbe, 1900), *D. konokono* Orr & Sibatani, 1986, *D. chimbu* Orr & Sibatani, 1986, *D. fascelis fascelis* Jordan, 1912, *D. fascelis ibelana* Roepke, 1955, *D. citrona* Joicey & Talbot, 1922 and *D. jordani* Kenrick, 1909, as defined by Orr and Sibatani (1986). It is distinguished from all those by its very reduced black border on the fore wing upperside and from *cuningputi* and *konokono* by its continuing submarginal light band on the hind wing underside.

Description

Male. – Upperside of fore wing white, black border from 1.5 mm outside discal cell to tornus, inner edge straight and slightly serrate. Very thin bar at top of discal cell. Upperside of hind wing white with black border from $SC+R_1$ to CU_2 , 3 mm wide in M_1 , narrowing to both ends. Underside of fore wing white in bottom 1/3, with black diffusion. Large black border connected with nearly totally black discal cell, enclosing three subapical yellow spots and three yellow to white marginal spots – with thin white line to margin border. Veins between discal cell and border partly black. Underside of hind wing black, divided by an irregular, 2–6 mm wide, curved white discal band, broken in M_1 . Terminal border white with a yellow basal streak. Inner part of hindwing black with two yellow spots and some yellowish diffusion. On white discal band one yellow spot just above black connection, five yellow streaks in underpart. Black border with undulate edge at innerside, having a row of six yellow spots in a line with the above mentioned yellow spot and streaks on white band.

Length of fore wing: (25) 28 – 29 mm.

Female unknown.

Derivation of name. – 'Oktanglap' (a noun in apposition) is the name of the creek from where the holotype originates.

Delias wollastoni abmisibilensis subsp. n.
(figs. 10 & 14)

Type material. – Holotype ♂: 'Irian Jaya/Abmisibil 1920 m/River Oktanglap/ 11.ix.1985/Van Mastrigt', ZMA. – Paratypes: same data as holotype, 1 ♂, HM; same data, but 1880–1920 m, 15.ix.1985, 1 ♂, HM; 22.x.1986, 1 ♂, MZB; 1 ♂, HM; 17–19. vii.1987, 1 ♂, ZMA.

Diagnosis

Adding this new subspecies from the Star Mountains in Irian Jaya, three separated populations of *Delias wollastoni* Rothschild, 1915 are now known, the other two being: *D. wollastoni wollastoni* from the southside of the Puncak Jaya (Carstensz Peak) (1 male in BMNH) and Beoga (1 male in GG) and *D. wollastoni bryophila* Roepke, 1955 from the

surrounding of Mt. Trikora (Mt. Wilhelmina) (good series of males in RMNH and ZMA and two males in HM). The new subspecies differs from the other two subspecies by its golden yellow colour of the fore wing underside and more vivid coloration of hind wing underside.

Description

Male. – Upperside of fore wing white, greyish black veins and some grey diffusion. Costal border black. Black border from top of discal cell to tornus encloses black LDC, two white subapical spots, two or three small terminal ones. Border reduced in cells M_3 , CU_1 and CU_2 and slightly entering along dorsum. Upperside hind wing white with grey veins and some grey diffusion, particularly at inner edge of broad black border in cell M_1 and M_2 . Underside of fore wing golden yellow, black border much narrower than on upperside, regularly curved at inner edge, encloses three large yellow subapical spots and five smaller yellow terminal ones. Costal border black; at top of LDC large black triangle which is narrowly connected to black border. Underside of hind wing with base and basal half of costa grey, bordered by $SC+R_1$. Large basal maroon coloured patch below $SC+R_1$, oblong patch on LDC and bowed, undulate postmedian band of same colour. Postmedian band consists of intervenal patches from RS to CU_2 . Anal area densely covered with golden yellow scales; grey becoming pinkish grey in outer third of discal cell and in adjacent cells. A strong and rather straight median band extends from costa to $1A+2A$, including the maroon brown streak on LDC. Space between this median and postmedian band filled with light pinkish grey, densely covered with dark grey-brown diffusion. Subterminal area light pinkish grey with darkened termen, more or less dusted with golden-yellow scales mainly on tips of veins.

Length of fore wing: 29 mm.

Female unknown.

Derivation of name. – Abmisibil is the name of the village in the Star Mountains, which is close to the sites where this butterfly occurs.

Delias luctuosa kuning subsp. n.
(figs. 11 & 15)

Type material. – Holotype ♂: 'Irian Jaya/Star Mountains/Abmisibil 1800 m/River Oktero/11.ix.1985', ZMA. – Paratypes: Abmisibil, River Okmi, 31.iii.1985, Sam Monareh; 1 ♂, HM; Abmisibil, River Oktanglap, H. van Mastrigt, 1 ♂, HM; Langda, River Bibwe, 1800 m, 6.iv.1989, H. van Mastrigt, 1 ♂, HM; same data, but 17–19.iv.1989, 1 ♂, HM.

Diagnosis

Three populations of *D. luctuosa* Jordan, 1912 have been named previously, viz. *D. luctuosa arch-*

boldi Roepke, 1955 from the Baliem Valley (also from the more western Ilaga Valley), *D. luctuosa luctuosa* from Mount Groome, Papua New Guinea, and *D. luctuosa mizukamii* Okana, 1989 from Simbu Province, Papua New Guinea. With the new population from Langda and Abmisibil a bridge is made between the population from central Irian Jaya and the two populations from Papua New Guinea. The new subspecies differs from the three above mentioned in the golden-yellow colour of the male fore wing underside.

Description

Male. – Upperside of fore wing white with black costal border, slightly entering discal cell. Terminal border very broad in cells M_1 , M_2 and M_3 , narrower towards tornus, where it slightly curves along dorsum, provided with irregular inner edge, enclosing two small white subapical spots. Veins visible, particularly those on underside of discal cell. Upperside of hind wing translucent white with black border, which is narrow in cell RS and M_1 , undulate at vein M_2 and M_3 and broad in cells CU_1 , CU_2 and 2A. Underside of fore wing deep yellow, turning to white along dorsum, black border along inner edge in cell 2A. Costal border black. Large LDC connected to black border in cell M_3 , demarcating two yellow spots with black diffusion in cells M_2 and M_1 . Black border encloses three dark yellow subapical spots and two or three small terminal spots. Underside of hind wing with white ground-colour. Black costal border connected to broad black anal border, including small yellow pear-shaped basal spot. Postdiscal black band (width 3 mm) curving from anal border to costa at vein $SC+R_1$ and entering broadly cell RS; outer edge bordered with small red

line. White discal part with pink diffusion, darker at innerside; veins white. Discal border consists of five black triangles at veins, touching red line and demarcating six white, triangular to v-shaped, spots.

Length of fore wing: 27–29 mm.

Female unknown.

Derivation of name. – A noun in apposition. 'Kuning' is the Indonesian word for yellow and refers to the yellow underside of the fore wing, the characteristic feature of this butterfly.

Delias nieuwenhuisi nom. nov.

Delias leucias roepkei Nieuwenhuis & Howart, 1969: 86. Holotype ♂: Mandated New Guinea, Telefomin, 1700 m, 5.viii.1962 (Natuurhistorisch Museum, Rotterdam) (preoccupied by *D. mira roepkei* Benneth, 1956).

Discussion

Since the subspecific name *roepkei* in *Delias leucias roepkei* Nieuwenhuis & Howarth is preoccupied by Benneth's name, the replacement name *nieuwenhuisi* is proposed here, in honour of Mr. E. J. Nieuwenhuis, who was the first to describe this taxon. Further, since *nieuwenhuisi* and *leucias* s. str. are sympatric in the Star Mountains along river Okkim at Abmisibil, Irian Jaya and at Telefomin, Papua New Guinea, they cannot be regarded as subspecies of one species, therefore the first one is raised to specific rank: *D. nieuwenhuisi*.

The differences between the specimens from Telefomin (types of *nieuwenhuisi*) and those from Abmisibil lead to the recognition of two subspecies: *D. nieuwenhuisi nieuwenhuisi* from Telefomin and *D. nieuwenhuisi poponga* subsp. n. from Abmisibil (see below).



Fig. 17. Distribution of new (sub)species of the genus *Delias*. a, Kamu valley (type locality of *bobaga*); b, Tembagapura (type locality of *catocausta eefi*); c, Ilaga (type locality of *sigit*); d, Sinak (type locality of *sinak*); e, Langda (paratypes of *luctuosa kuning*); f, Abmisibil (type locality of *oktanglap*, *wollastoni abmisibilensis* and *luctuosa kuning*).

***Delias nieuwenhuisi poponga* subsp. n.**
(figs. 12, 16)

Type material. – Holotype ♂: 'Irian Jaya/Sterrengebergte/Batimban/ca 1900 m/ River Okkim, v.1988/ H. van Mastrigt', ZMA. – Paratypes: same data, 9 ♂, HM; 1 ♂, ZMA; same data, but 24.xii.1985-7.i.1986, 3 ♂, HM; same data, but 1-5.v.1986, 14 ♂; 2 ♂, DR; 6 ♂, RMNH; same data, but 14-16.ii.1987, 6 ♂, ZMA; same data, but ix.1987, 7 ♂, HM; 1 ♂, BT; 6 ♂, ZMA; same data, but 19-21.iii.1988, 14 ♂, HM; 6 ♂, BT; same data, but 13-15.iv.1988, 2 ♂, FG; 1 ♂, HM; 1 ♂, CT; same data, but 22.v-5.vi.1988, 2 ♂, HM; same data, but 11-13.viii.1988, 4 ♂, HM; same data, but vi.1986, 2 ♂, ERIL; same data, but 19-20.viii.1990, 4 ♂, HM; 4 ♂, MZB; Takpalangi, 17-25.ix.1988, H. van Mastrigt, 6 ♂, HM; Ferohir, 5.v.1986, H. van Mastrigt, 1 ♂, ZMA.

Diagnosis

This subspecies differs from nominate *nieuwenhuisi* in three characters. Upperside and underside of fore wing having narrow black borders (even narrower than in *leucias*); having upperside of fore wing with a black vein, connecting border with midcell and underside of hind wing with a large posterior red strike and a thin anterior white line in the basal spot.

Description

Male. – Upperside of fore wing white with narrow black border, 5 mm in cell R_5 to 1 mm in cell CU_2 . Inner edge slightly serrate, not curved from cell R_5 to tornus. Black vein R_2 connects border with discal cell, demarcating a small white spot. Apical and marginal spots absent. Upperside of hind wing white, 1-2 mm wide, black border. Underside of fore wing yellow, narrow black border as broad as on upperside, having four yellow apical spots. Ground-colour orange yellow in cells R_5 , M_1 , M_2 , M_3 , and CU_1 , lemon yellow in discal cell and pale yellow to creamy white in cells CU_2 and 2A. Underside of hind wing with large creamy discal area, covering nearly whole discal cell and large inner parts of cells RS , M_1 , M_2 , M_3 and CU_1 , just entering cell CU_2 . Discal area surrounded by black line, which is less than 1 mm in cell RS , 2 mm in cell CU_1 and 3.5 mm in discal cell. Red subbasal mark usually oblong, sometimes more like an upside down 'v'. A 1 mm wide red line runs from cell $SC+R_1$ to CU_2 , parallel to and connected with black line which surrounds discal area. Discal border consists of a, 1.5 mm wide, white line, with at its outer edge a narrow black line from cell M_1 to CU_1 , which is more than 1 mm in cells M_3 and CU_1 only. Basal spot anteriorly white, posteriorly red. Anal margin appearing dirty pale yellow due to low number of black scales (compared to other species of this subgroup). Concentration of white scales along vein 3A divides yellow anal area.

Length of fore wing: 22-24 mm.

Female unknown.

Derivation of name. – A noun in apposition. 'Poponga' is the vernacular word for butterfly used by the people in the western part of the Star Mountains, where this butterfly occurs.

ACKNOWLEDGEMENTS

I gratefully acknowledge the help of Dr. Fred Gerrits, Mr. David Manning, Mr. Bernard Turlin and Mr. Collin Treadaway, Mr. David Rushen, who allowed me to study their private collections and the assistance of Dr. Eduard Reissinger and Dr. Atuhiro Sibatani. Many thanks are extended to the Instituut voor Taxonomische Zoölogie (Zoölogisch Museum), Amsterdam, for the good and helpful cooperation, especially to Mr. L. van der Laan for the preparation of the photographs.

The cooperation with the Museum Zoologicum Bogoriense, Bogor and the Department of Forestry, Irian Jaya, in the study of butterflies from Irian Jaya is gratefully acknowledged.

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Received: 18 July 1990

Accepted: 14 September 1990